PERMIT TO OPERATE

COMPANY NAME: PARAMOUNT PETROLEUM CORP
ID No. 800183

MAILING ADDRESS: 14700 Downey Ave
Paramount, CA 90745

EQUIPMENT LOCATION: 14700 Downey Ave
Paramount, CA 90745

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PROJECT SUMMARY

As required by the Minute Order of Variance Case No. 2914-96 issued by the AQMD Hearing Board on June 15, 2010, Paramount submitted the subject permit applications for a change of condition to each of their four Reformer Heaters to reflect the implementation of a project to install an automatic fuel shutoff system to immediately cut off the supply of fuel to the Reformer Heaters immediately upon opening of the bypass stack dampers in lieu of installing required CEMS on the bypass stacks. The Reformer heaters and their air pollution control equipment (SCR) are all operating under Permits to Construct (PC). Since there will be no physical modifications to the heaters and the SCR with the requested change in condition and since all conditions of PC have been met, these applications will be issued Permits to Operate.

EQUIPMENT DESCRIPTION

Additions to the Facility Permit are noted in underlines and deletions are noted in ~~strikeouts~~.

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions And Requirements	Conditions
Process 3: CATALYTIC REFORMING					
System 2: HEATERS					
HEATER, H-303, REFINERY GAS, UNIVERSAL OIL PRODUCTS, REFORMER CHARGE, WITH LOW NOX	D73	C77	NOX: MAJOR SOURCE SOX: MAJOR SOURCE	**CO**: 2000 PPMV (5)[**RULE 407,4-2-1982**]; **PM**: 0.1 GRAINS/	B61.2, C1.35, D90.7, D328.2, E448.x

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions And Requirements	Conditions
BURNER, 48 MMBTU/HR WITH A/N: ~~491590~~ 511350 ~~Permit to Construct Issued: 02/18/09~~ BURNER, JOHN ZINK, MODEL PSFFG-10M, 24 LOW NOX BURNERS, WITH LOW NOX BURNER				SCF (5) [**RULE 409, 8-7-1981**]; **PM**: (9)[**RULE 404, 2-7-1986**]	H23.4 ~~H.5~~
HEATER, H-304, REFINERY GAS, UNIVERSAL OIL PRODUCTS, REFORMER CHARGE, WITH LOW NOX BURNER, 48 MMBTU/HR WITH A/N: ~~491589~~ 511351 ~~Permit to Construct Issued: 02/18/09~~ BURNER, JOHN ZINK, MODEL PSFFG-10M, 24 LOW NOX BURNERS, WITH LOW NOX BURNER	D74	C77	NOX: MAJOR SOURCE SOX: MAJOR SOURCE	**CO**: 2000 PPMV (5)[**RULE 407,4-2-1982**]; **PM**: 0.1 GRAINS/ SCF (5) [**RULE 409, 8-7-1981**]; **PM**: (9)[**RULE 404, 2-7-1986**]	B61.2, C1.35, D90.7, D328.2, E448.x H23.4 ~~H.5~~
HEATER, H-305, REFINERY GAS, UNIVERSAL OIL PRODUCTS, REFORMER REHEAT, WITH LOW NOX BURNER, 38.43 MMBTU/HR WITH A/N: ~~491588~~ 511352 Permit to Construct Issued: 02/18/09 BURNER, JOHN ZINK, MODEL UOV-4", 18 LOW NOX BURNERS, WITH LOW NOX BURNER	D75	C77	NOX: MAJOR SOURCE SOX: MAJOR SOURCE	**CO**: 400 PPMV (5A)[**RULE 1146, 11-17-2000**]; **CO**: 2000 PPMV (5)[**RULE 407,4-2-1982**]; **PM**: 0.1 GRAINS/ SCF (5) [**RULE 409, 8-7-1981**]; **PM**: (9)[**RULE 404, 2-7-1986**]	B61.2, D90.7, D328.1, E448.x H23.4 ~~H.5~~
HEATER, H-306, REFINERY GAS, UNIVERSAL OIL PRODUCTS, REFORMER NO. 2 REHEAT, WITH LOW NOX BURNER, 27.72 MMBTU/HR WITH A/N: ~~491587~~ 511353 ~~Permit to Construct Issued: 02/18/09~~ BURNER, JOHN ZINK, MODEL PSFFG-10M, 12 LOW NOX BURNERS, WITH LOW NOX BURNER	D76	C77	NOX: MAJOR SOURCE SOX: MAJOR SOURCE	**CO**: 400 PPMV (5A)[**RULE 1146, 11-17-2000**]; **CO**: 2000 PPMV (5)[**RULE 407,4-2-1982**]; **PM**: 0.1 GRAINS/ SCF (5) [**RULE 409, 8-7-1981**]; **PM**: (9)[**RULE 404, 2-7-1986**]	B61.2, C1.36, D90.7, D328.1, E448.x H23.4 ~~H.5~~

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions And Requirements	Conditions
Process 3: CATALYTIC REFORMING					
System 3: SELECTIVE CATALYTIC REDUCTION					
SELECTIVE CATALYTIC REDUCTION, VANADIUM OXIDE AND TUNGSTEN OXIDE BASED CATALYST, ENGELHARD CATALYST VOLUME 119.32 CU FT OR HALDOR TOPSOE CATALYST VOLUME 134 CU FT, WIDTH: 7 FT 8.4 IN; HEIGHT: 1 FT 10.8 IN; LENGTH: 10 FT 9.6 IN WITH A/N: 487936 ~~Permit to Construct Issued: 02/18/09~~ AMMONIA INJECTION, AQUEOUS AMMONIA	C77	D73 D74 D75 D76		**NH3**: 18 PPMV (5)[**RULE 1303(a)(1) BACT, 5-10-1996;** RULE 1303(a)(1)-BACT, 12-6-2002]	D28.7 E57.1 E73.1

CONDITIONS

B61.2 The operator shall not use fuel gas containing the following specified compounds:

Compound	ppm by volume
H2S greater than	160

The H2S concentration limit shall be based on a rolling 3-hr averaging period.

[**40CFR60 Subpart J, 6-24-2008**]
[Devices subject to this condition: D27, D29, D30, D31, D44, D45, D46, D73, D74, D75, D76, C175]

C1.35 The operator shall limit the firing rate to no more than 48 MM Btu per hour.

[**Rule 1303(b)(2)-Offset, 5-10-1996**; Rule 1303(b)(2)-Offset, 12-6-2002]
[Devices subject to this condition: D73, D74]

C1.36 The operator shall limit the firing rate to no more than 27.7 MM Btu per hour.

[**Rule 1303(b)(2)-Offset, 5-10-1996**; Rule 1303(b)(2)-Offset, 12-6-2002]
[Devices subject to this condition: D76]

D28.7 The operator shall conduct source test(s) in accordance with the following specifications:

The test shall be conducted to determine NH3 emissions at the outlet.

The test shall be conducted at least once every three years.

The test shall be conducted when the equipment being vented by the SCR are operating under normal conditions.

[**Rule 1303(a)(1)-BACT, 5-10-1996**; Rule 1303(a)(1)-BACT, 12-6-2002; **Rule 3004(a)(4)-Periodic Monitoring, 12-12-1997**]
[Devices subject to this condition: C77]

D90.7 The operator shall continuously monitor the H2S concentration in the fuel gases before being burned in this device according to the following specifications:

The operator shall use an NSPS Subpart J approved instrument meeting the requirements of 40 CFR 60 Subpart J to monitor the parameter.

The operator shall also install and maintain a device to continuously record the parameter being monitored.

The operator may monitor the H2S concentration at a single location for fuel combustions devices, if monitoring at this location accurately represents the concentration of H2S in the fuel gas being burned in this device.

[**40CFR60 Subpart J, 6-24-2008**]
[Devices subject to this condition: D27, D44, D46, D73, D74, D75, D76, C175]

D328.1 The operator shall determine compliance with the CO emission limit(s) either: (a) conducting a source test at least once every five years using AQMD Method 100.1 or 10.1; or (b) conducting a test at least annually using a portable analyzer and AQMD-approved test method. The test shall be conducted when the equipment is operating under normal conditions to demonstrate compliance with the CO concentration limit(s). The operator shall comply with all general testing, reporting, and recordkeeping requirement in Sections E and K of this permit.

[**Rule 1146, 11-17-2000**; **Rule 3004(a)(4)-Periodic Monitoring, 12-12-1997**; **Rule 407, 4-2-1982**]
[Devices subject to this condition: D27, D31, D75, D76, D374]

D328.2 The operator shall determine compliance with the CO emission limit(s) either: (a) conducting a source test at least once every five years using AQMD Method 100.1 or 10.1; or (b) conducting a test at least annually using a portable analyzer and AQMD-approved test method. The test shall be conducted when the equipment is operating under normal conditions to demonstrate compliance with the CO concentration limit(s). The operator shall comply with all general testing, reporting, and recordkeeping requirement in Sections E and K of this permit.

[**Rule 3004(a)(4)-Periodic Monitoring, 12-12-1997**; **Rule 407, 4-2-1982**]
[Devices subject to this condition: D29, D30, D73, D74, D375, D376]

E57.1 The operator shall vent this equipment to dust control equipment whenever SCR catalyst loading/unloading or handling/transport operations produces catalyst fines.

[**Rule 1303(a)(1)-BACT, 5-10-1996**; Rule 1303(a)(1)-BACT, 12-6-2002**; Rule 1303(b)(2)-Offset, 5-10-1996**; Rule 1303(b)(2)-Offset, 12-6-2002]
[Devices subject to this condition: C77, C794, C814]

E73.1 Notwithstanding the requirements of Section E conditions, the operator is not required to use ammonia injection if any of the following requirement(s) are met:

The temperature at the inlet of the SCR catalyst bed is below 550 deg F.

[**Rule 1303(a)(1)-BACT, 5-10-1996**; Rule 1303(a)(1)-BACT]
[Devices subject to this condition: C77]

E448.x The operator shall comply with the following requirements:

The operator shall maintain the SCR bypass stack dampers for heaters D73, D74, D75, and D76 at a fully closed position such that no emissions will be exhausted through the bypass stacks whenever fuel is supplied to the heaters.

The operator shall install and maintain damper limit switches or other equivalent device to accurately indicate the fully closed position of the SCR bypass stack dampers.

The operator shall record the position of the dampers at least once every 15 minutes and any time the damper position changes.

The operator shall install and maintain an automatic fuel shutoff system

to cut off the fuel supply to this device whenever any of the bypass stack dampers is not in the fully closed position. This fuel shut-off valve may be removed for maintenance provided the heater which it serves is out of service and isolated (blinded) from its fuel supply.

The operator shall maintain records in a manner approved by the District to demonstrate compliance with the requirements specified under this condition.

[**Rule 2012, 5-6-2005**]
[Devices subject to this condition: D73, D74, D75, D76]

H23.4 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
H2S	40CFR60, Subpart	J

[**40CFR 60 Subpart J, 6-24-2008**]
[Devices subject to this condition: D27, D29, D30, D31, D44, D45, D46, D73, D74, D75, D76, C175, C531]

~~H1.5~~ ~~The operator shall comply with all the requirements of the Variance, Case No. 2914-93, dated November 6, 2008, in accordance with the Findings and Decisions of the Hearing Board or as subsequently modified by the Hearing Board. The operator shall submit progress reports at least semi-annually, or more frequently if specified in the Findings and Decisions. The progress reports shall contain dates for achieving activities, milestones or compliance required in the schedule of compliance and dates when such activities, milestones or compliance were achieved; and an explanation of why any dates in the schedule of compliance were not, or will not be met, and any preventative or corrective measures adopted.~~

~~[**Rule 3004(a)(10)(C) 12-12-1997**]~~00
~~[Devices subject to this condition: D73, D74, D75, D76]~~

Note: Paramount completed all the requirements. Variance Case No. 2914-93 is terminated.

BACKGROUND

Paramount Petroleum Corporation (Paramount) operates a petroleum refinery located at 14700 Downey Avenue in the city of Paramount in the southern portion of Los Angeles County. Paramount processes crude oil into marketable products including gasoline, diesel fuel, jet fuel and other products. Emission sources at the refinery include combustion sources (heaters, boilers, and IC engines), fugitive components (pumps, valves, flanges, compressors, drains, etc.), cooling towers, storage tanks, flares and loading/unloading facilities. The South Coast Air Quality Management District (AQMD) identification number for the facility is 800183.

There are four catalytic reforming heaters at the Paramount Refinery (H-303, H-304, H-305, and H-306). These heaters run on refinery gas with a total heat input of 162.15 MMBtu/hr. The reformer heaters were initially constructed as natural draft heaters, each with a stack and a damper valve. In or around 1991, the four reformer heaters were manifolded together to vent to a single air pollution control device, a Selective Catalytic Reduction (SCR) unit. The SCR unit has a stack that vents to the atmosphere which is equipped with a continuous emissions monitoring system (CEMS) unit. The individual heater bypass stacks are not equipped with CEMS.

On August 7, 2008, the District issued a Notice of Violation to Paramount for operating the reformer heaters in violation of Rule 2012. Rule 2012 (c)(2)(A), states in part, the Facility Permit holder of a major NOx source shall install, maintain and operate a direct monitoring device for each major NOx source to continuously measure the concentration of NOx emissions. Since the bypass stacks are not continuously monitored to determine the amount of emissions passing through them, the heaters are not in compliance with the requirement of Rule 2012 (c)(2)(A).

On October 23, 2008, the Hearing Board granted a short variance, Case No. 2914-93, which provided variance coverage for Rule 2012 (c)(2)(A) through the turnaround period until January 29, 2009. Work has been completed and variance terminated.

On May 29, 2009, the Hearing Board granted a regular variance, Case No. 2914-96, for the period commencing April 14, 2009 and continuing through June 15, 2010 to allow Paramount time to resolve the compliance issue with Rule 2012 (c)(2)(A). The variance was later modified to extend the final compliance date to November 15, 1010 to comply with all the conditions set forth in the minute order issued by the Hearing Board.

As required by Condition 6 of the Minute Order, Paramount submitted the subject permit applications for a change of condition to each of the four reformer heaters to reflect the implementation of a project to modify the automatic trip control logic that will ensure that the fuel gas feed valve to the reformer heaters will remain in the closed position until the bypass stack is closed.

A copy of the Variance Case No. 2914-96 with the Findings and Decision of the Hearing Board and Minute Order is included in Attachment 1.

AQMD received the application package on June 1, 2010. Additional fees were received on July 6, 2010. Supplemental information was received on August 9, 2010. Table 1 lists permit processing tracking information and fees.

Table 1: PERMIT ADMINISTRATION & APPLICATION TRACKING INFORMATION

	A/N	***Equipment Description***	***Status/ Type***	***BCAT/ CCAT***	***Previous A/N***	***Fee Required FY 09-10***	***Fee Paid***
1	511350	Heater H-303, Dev D73	20/60	019604	491590	$3,008.18	$3,008.18
2	511351	Heater H-304, Dev D74	20/60	019604	491589	$1,504.09 (Identical equipment)*	$1,504.09
3	511352	Heater H-305, Dev D75	20/60	019604	491588	$3,008.18	$3,008.18
4	511353	Heater H-306, Dev D76	20/60	019604	491587	$3,008.18	$3,008.18
5	487936	Selective Catalytic Reduction, Dev C77	26/50	81	475175	$4,867.37	$4,867.37
6	511354	RECLAIM/Title V Minor Permit	21/85		N/A	$1,687.63	$1,687.63

*Heaters H-303 and H-304 are identical units and fees were discounted 50% for the second unit per District rule.

Attachment 2 includes a copy of the current permit for the four reformer heaters and the SCR taken from District records.

COMPLIANCE RECORD REVIEW

A review of the AQMD Compliance Database showed 42 Notices of Violation (NOV) and Notices to Comply (NC) issued to Paramount in the past five years (07/01/05 – 07/29/10). All notices are either closed or in compliance status. The Stipulated Orders for Abatement (SOFA) are closed. Paramount is on a schedule to compliance on the Variance Cases.

It is noted here that on August 7, 2008, the District issued a Notice of Violation to Paramount for operating the subject reformer heaters in violation of Rule 2012. Rule 2012 (c)(2)(A), states in part, the Facility Permit holder of a major NOx source shall install, maintain and operate a

direct monitoring device for each major NOx source to continuously measure the concentration of NOx emissions. Since the bypass stacks are not continuously monitored to determine the amount of emissions passing through them, the heaters are not in compliance with the requirement of Rule 2012 (c)(2)(A).

To resolve the compliance issue, Paramount submitted the subject permit applications as required by Condition 6 of the Minute Order for a change of condition to each of the four reformer heaters to install an automatic fuel shutoff system to immediately cut off the supply of fuel to the heaters immediately.

A summary of the NOV, NC, SOFA and Variances are provided in Attachment 3.

PERMIT HISTORY

Heater H-303, Dev D73, A/N 511350

Permit to Construct		*Permit to Operate*		*Description of Permitting Activity*
A/N	*Issue Date*	*No*	*Issue Date*	
447310		F79887	4/07/05	Administrative change to reinstate the condition limiting heat input of the heater replacing the equivalent emission limits for CO, PM and ROG.
491590	2/18/09			New catalyst for its control equipment (SCR)

Heater H-304, Dev D74, A/N 511351

Permit to Construct		*Permit to Operate*		*Description of Permitting Activity*
A/N	*Issue Date*	*No*	*Issue Date*	
447311		F79888	4/07/05	Administrative change to reinstate the condition limiting heat input of the heater replacing the equivalent emission limits for CO, PM and ROG.
491589	2/18/09			New catalyst for its control equipment (SCR)

Heater H-305, Dev D75, A/N 511352

Permit to Construct		*Permit to Operate*		*Description of Permitting Activity*
A/N	*Issue Date*	*No*	*Issue Date*	
361982		F24504	3/23/00	Administrative change for non-operational status.
491588	2/18/09			New catalyst for its control equipment (SCR)

Heater H-306, Dev D76, A/N 511353

Permit to Construct		*Permit to Operate*		*Description of Permitting Activity*
A/N	*Issue Date*	*No*	*Issue Date*	
447313		F79889	4/07/05	Administrative change to reinstate the condition limiting heat input of the heater replacing the equivalent emission limits for CO, PM and ROG.
491587	2/18/09			New catalyst for its control equipment (SCR)

SCR, Dev C77, A/N 487936

Permit to Construct		*Permit to Operate*		*Description of Permitting Activity*
A/N	*Issue Date*	*No*	*Issue Date*	
321031		F5627	3/6/97	Change of condition to lower ammonia injection temperature to 550°F instead of 575°F.
475175	7/25/2008			Convert SCR to use aqueous ammonia instead of anhydrous ammonia

PROCESS AND PROJECT DISCUSSION

Catalytic reforming is a chemical process used to convert naphtha, typically having low octane ratings, into high-octane liquid products called reformates which are components of high-octane gasoline. It is a reaction where paraffins are converted to isoparaffins and naphthenes. Naphthenes are then also converted to aromatics. A series of three reactors are usually used for the process and catalysts made of alumina, silica and platinum make the reactions work. Naphtha is fed into the series of reactors which are kept at 900-975°F and 200-500 psi. After the last reactor, the product is put through a cooler and liquefied. It is then run through a hydrogen separator and later a stabilizer, which removes butane and lighter gases. Reformate is the desired product of the process and is a high quality gasoline blend stock.

The reforming process requires large fired heaters to heat the product to the desired temperature. There are four reforming heaters at the Paramount Refinery (H-303, H-304, H-305, and H-306). These heaters run on refinery gas with a total heat input of 162.15 MMBtu/hr. The reformer heaters were initially constructed as natural draft heaters, each with a stack and a damper valve. In or around 1991, the four reformer heaters were manifolded together to vent to a single air pollution control device, a Selective Catalytic Reduction (SCR) unit. The SCR unit has a stack that vents to the atmosphere which is equipped with a continuous emissions monitoring system (CEMS) unit. The individual heater bypass stacks are not equipped with CEMS.

In lieu of installing CEMS on the bypass stacks, the facility will install an automatic fuel shutoff system to immediately cut off the supply of fuel to the heaters immediately. As required by

Condition 6 of the Minute Order, Paramount submitted the subject permit applications for a change of condition to each of the four reformer heaters to reflect the implementation of a project to modify the automatic trip control logic that will ensure that the fuel gas feed valve to the reformer heaters will remain in the closed position until the bypass stack is closed.

According to Paramount, reformer heaters environmental interlocks will be installed to automatically trip the reformer heaters if the atmospheric dampers open while the heaters are in service. Limit switches will be installed on each bypass damper controller. If the limit switches indicate an atmospheric damper is open on any of the four reformer heaters, the interlocks will automatically shut down the fuel supply to all four heaters.

This engineering evaluation addresses only the addition of a condition to each of the Reformer Heaters clarifying that heater operation will automatically be shut down in the event that the atmospheric bypass stacks open for any reason while the heaters are in service. The heaters and the SCR are already accurately described in Section H of the Facility Permit.

A field evaluation was conducted on July 9, 2010. The actual configuration of the subject devices was verified and company records showing compliance to all permit conditions and district's rules and regulations were obtained. A field evaluation report with company records is included in Attachment 4.

EMISSIONS CALCULATION

Criteria pollutant emissions are due to combustion in the Reformer Heaters. Since there is no change in the Reformer Heaters rating, there will be no change to the "potential to emit" emissions. The baseline emissions from the previous applications are shown below and a copy of the calculations can be found in Attachment 5.0

COMBUSTION EMISSIONS CALCULATIONS SUMMARY

A/N	*Device*	*CO* (lbs/day)	*NOx* (lbs/day)	*PM* (lbs/day)	*ROG* (lbs/day)	*SOx* (lbs/day)
511350	Heater H-303, Dev D73	4	58	19	6	15
511351	Heater H-304, Dev D74	4	58	19	6	15
511352	Heater H-305, Dev D75	3	46	15	5	12
511353	Heater H-306, Dev D76	2	33	11	4	9

Note: The reported RECLAIM emissions for both NOx and SOx for the last two years (2008 and 2009) are well below the calculated maximum emissions above.

RULES EVALUATION

PART 1: SCAQMD REGULATIONS

Rule 212 Standards for Approving and Issuing Public Notice (Amended Nov. 14, 1997)

212 (a) The applicant is required to show that the equipment, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, is so designed, controlled, or equipped with such air pollution control equipment that it may be expected to operate without emitting air contaminants in violation of provisions of Division 26 of the State Health and Safety Code of these rules. The operation of the reformer heaters and its control equipment is expected to comply with this requirement.

212(c)(1) Public notification is required if any new or modified permit unit, source under Regulation XX, or equipment under Regulation XXX may emit air contaminants located within 1000 feet from the outer boundary of a school. However, this subdivision shall not apply to a modification resulting in a reduction of emissions and no increase in health risk at any receptor location. Since there is no increase in emissions with the operation of the proposed project, public notification is therefore not required.

212(c)(2) Public notification is required if any new or modified facility has on-site increases exceeding any of the daily maximums specified in subdivision (g) of this rule. Since there is no increase in emissions with the operation of the proposed project, public notification is therefore not required.

212(c)(3) Public notification is required if the increase in maximum individual cancer risk (MICR), based on Rule 1401, exceeds one in a million (1×10^{-6}), due to a project's new construction or proposed modification. Since there is no increase in emissions with the operation of the proposed project, public notification is therefore not required.

212(g) This subdivision sets forth the process for federal public notification and distribution and specifies the daily maximum emissions increase as follows:

Air Contaminant	Daily Maximum in lbs/day
Volatile Organic Compounds	30
Nitrogen Oxides	40
PM10	30
Sulfur Dioxide	60
Carbon Monoxide	220
Lead	3

Since there is no increase in emissions with the operation of the proposed project, federal public notification is not required.

Rule 401 Visible Emissions (Amended November 9, 2001)
Operation of the reformer heaters and its control equipment is not expected to result in visible emissions. Therefore, continued compliance with this rule is expected.

Rule 402 Nuisance (Adopted May 7, 1976)
Operation of the reformer heaters and its control equipment is not expected to result in a public nuisance. Therefore, continued compliance with this rule is expected.

Rule 404 Particulate Matter (Amended February 7, 1986)
This rule requires particulate matter discharged into the atmosphere be less than the standard listed in Table 404(a) of this rule. Operation of the reformer heaters and its control equipment does not increase PM emissions. Therefore, continued compliance is expected.

Rule 407 Liquid and Gaseous Contaminants (Amended April 2, 1982)

407(a)(1) CO emissions from the reformer heaters are expected to be well under the 2,000 ppmv limit specified in this rule. Continued compliance is expected.

407(a)(2) Since Paramount is a NOx/SOx RECLAIM facility, the SOx emission limits of this rule do not apply to the reformer heaters.

Rule 409 Combustion Contaminants (Amended August 7, 1981)
This rule limits particulate emissions from combustion to 0.1 grains per cubic foot @ 12% CO_2. Continued compliance is expected.

Reg IX Standards of Performance for New Stationary Sources (NSPS)

40 CFR 60, Subpart J: Standards of Performance for Petroleum Refineries

The proposed change of condition will not have an emissions increase from the heaters. However, since the heaters are already subject to this regulation, continued compliance is expected as imposed by Conditions B61.2, D90.7 and H23.4 to address the requirements.

Reg XIII New Source Review (NSR)

Rule 1303: Requirements (Amended Dec. 6, 2002)
This rule allows the Executive Officer to deny a Permit to Construct for any new, modified or relocated source which results in an emission increase of any non-attainment air contaminant, any ozone depleting compound, or ammonia, unless BACT is used. This rule also requires modeling and offset (among other requirements) if there is a net increase in any non-attainment air contaminants for any new or modified source.

1303(a) Best Available Control Technology (BACT)
The Permit to Construct for any new of modified source which results in an emission increase of any nonattainment air contaminant shall be denied unless BACT is employed. BACT was satisfied previously with the use of low-NOx burners and SCR.

1303(b) This subdivision lists the following requirements for a Permit to Construct for any new or modified source which results in a net emission increase of any nonattainment air contaminant at a facility.

- 1303(b)(1) Modeling
- 1303(b)(2) Emission Offsets
- 1303(b)(3) Sensitive Zone Requirements
- 1303(b)(4) Facility Compliance
- 1303(b)(5) Major Polluting Facilities
  - (A) Alternative Analysis
  - (B) Statewide Compliance
  - (C) Protection of Visibility
  - (D) Compliance Through California Environmental Quality Act

Since the proposed change of condition does not result in a net emissions increase of any nonattainment air contaminant, all the requirements of this subdivision do not apply.

Reg XIV Toxics and Other Non-Criteria Pollutants

Rule 1401: New Source Review of Toxic Air Contaminants (Amended March 4, 2005)

This rule specifies that a project not result in an increase in maximum individual cancer risk (MICR) greater than 1 x 10^{-6}, or 10 x 10^{-6} if T-BACT is used, that the noncancer acute and chronic hazard index (HI) not exceed 1.0 and that the cancer burden not exceed 0.5 from new permit units, relocations or modifications to existing permit units which emit toxic air contaminants listed in Table 1 of this rule.

1401(g)(1)(B) Exemptions – Modification with No Increase in Risk

The requirements of this rule shall not apply to a modification of a permit unit that causes a reduction or no increase in the cancer burden, MICR or acute or chronic HI at any receptor location. Since the proposed change of condition will not cause an increase in toxic air contaminants, it is exempt from the requirements of this rule.

Reg XVII Prevention of Significant Deterioration (PSD)

This regulation sets forth preconstruction review requirements for stationary sources to ensure that air quality in clean air areas does not significantly deteriorate while maintaining a margin for future industrial growth.

The SCAQMD is presently considered in attainment for the following criteria pollutants: NO_2, SO_2, CO and Lead; thus these pollutants are subject to PSD regulations.

According to the guidance provided in Mohsen Nazemi's email dated August 14, 2007, the AQMD has signed a new Limited PSD Delegation agreement with EPA effective July 25, 2007. Therefore, effective July 25, 2007, the AQMD has PSD responsibility for all new PSD sources and all modifications to existing PSD sources where the applicant is requesting to use the existing Regulation XVII to determine PSD applicability for a modification and not the recent calculation methodology adopted by the EPA as part of the NSR Reform.

The requirements of this regulation are not applicable for the proposed change of condition covered in this engineering evaluation since there is no net increase in annual emissions of any of the attainment air contaminant.

Reg XX Regional Clean Air Incentives Market (RECLAIM)

Rule 2005: New Source Review for RECLAIM

Paramount is a NOx and SOx RECLAIM facility. It is therefore subject to Reg XX.

2005(c) Requirements for Existing RECLAIM facilities

This subdivision requires BACT, modeling and proof of sufficient RECLAIM Trading Credits (RTC) for an application for a Facility Permit amendment that results in any increase in NOx and SOx emissions. These applications will not increase NOx or SOx emissions; therefore this subdivision does not apply.

2005(g) Additional Federal Requirements for Major Stationary Sources

This subdivision lists additional requirements for application for a Facility Permit or an Amendment to a Facility Permit for a new, relocated or modified major stationary source, as defined in the Clean Air Act, 42, U.S.C. Section 7511a(e). Section 7511a(e)(2) defines modification as any change at a major stationary source which results in any increase in emissions. These applications will not increase NOx or SOx emissions; therefore this subdivision does not apply.

Rule 2012: Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Nitrogen (NOx) Emissions (Amended May 6, 2005)

The reformer heaters are major NOx/SOx sources subject to the requirements of RECLAIM. Except during SCR bypass operations when the dampers in the bypass stacks are tripped (as discussed earlier in this evaluation), the facility complies with the monitoring, reporting and recordkeeping requirements pursuant to Sections F and G of the Title V permit. Pursuant to the conditions set forth in Variance Case No. 2914-96, permit condition E448.1 has been imposed on the reformer heaters to prohibit the use of the bypass stacks without CEMS by shutting off the fuel supply to the heaters whenever the bypass stack dampers are tripped.

Reg XXX **Title V Permits**

Rule 3001(a): Applicability (Amended November 14, 1997)

The Title V Permit system is the air pollution control permit system required to implement the federal Operating Permit Program as required by Title V of the federal Clean Air Act as amended in 1990. Paramount has been designated as a Phase One Title V facility and has submitted A/N 337522 for their initial Title V permit on February 5, 1998. The final initial Title V permit was issued on February 27, 2009.

Rule 3005: Permit Revisions (Amended March 16, 2001)

The permits for this project will be issued as a minor revision of the Title V permit since the revision meets all of the requirements below and as such, it will be sent to the EPA for a 45-day review per Rule 3005(c)(2)(B). Public Notice is not required per Rule 3006(b).

As defined in Rule 3000(b)(12) a minor Title V permit revision is any revision that meets all of the criteria below:

1. Does not require or change a case-by-case evaluation of a RACT or MACT emission limitation
2. Does not require any significant change in monitoring terms or conditions in the permit, e. g. change in method, type, frequency, etc.
3. Does not require the relaxation of any recordkeeping or reporting requirement, term or condition in the permit
4. Does not result in an increase in emissions of a pollutant subject to New Source Review or HAP
5. Does not result in an installation of a new permit unit subject to a New Source Performance Standard (NSPS) pursuant to 40CFR 60, or a National Emission Standard for Hazardous Air Pollutants (NESHAP) pursuant to 40 CFR Part 61 or 63
6. Does not result in a modification or reconstruction of an existing permit unit, resulting in new or additional NSPS requirements pursuant to 40 CFR 60, or new or additional NESAHP requirements pursuant to 40 CFR Part 61 or 63
7. Does not establish or change a permit condition that the facility has accepted to avoid an applicable requirement
8. Does not result in an emission increase of RECLAIM pollutants over the facility's starting allocation plus NTCs or higher allocation amount which has previously undergone a significant permit revision process and
9. Does not violate a regulatory requirement
10. Or, the proposed revision must require the incorporation of an existing general permit and its associated requirements into another Title V permit.

PART 2: STATE REGULATIONS

CEQA California Environmental Quality Act

CEQA requires that the environmental impacts of proposed projects be evaluated and that feasible methods to reduce, avoid or eliminate identified significant adverse impacts of these projects be considered. The CEQA Applicability Form (400-CEQA) submitted by Paramount indicates that the project does not have any impacts which trigger the preparation of a CEQA document; therefore a

CEQA analysis is not required.

PART 3: FEDERAL REGULATIONS

40 CFR 63 Subpart CC: National Emission Standards for Hazardous Air Pollutants (NESHAP) for Petroleum Refineries

§63.640 Applicability and designation of affected source (Amended May 25, 2001)

The refining process units and equipment located at the Paramount Refinery are subject to the requirements of this subpart addressing:

- miscellaneous process vents
- storage vessels
- wastewater streams,
- loading, and
- equipment leaks

Paramount has provided data to the District to show that Paramount Refinery is not a major HAP source which is defined as a source emitting 10 tpy of any single HAP or 25 tpy of all HAPs combined. Therefore, this subpart is not applicable because the refinery does not meet the criterion specified by paragraph (a)(1) of this section. Attachment 6 contains the Potential to Emit Hazardous Air Pollutants summary provided by Paramount to the District.

Note: Compliance to Federal Rule 40CFR60 Subpart J is evaluated under District Regulation IX above.

CONCLUSION AND RECOMMENDATION

The operation of the reformer heaters and the SCR is expected to comply with all applicable District, State and Federal Rules and Regulations. Therefore, issuance of Permits to Operate is recommended.